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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,875	07/28/2003	Jun Abe	107441.01	3611
25944	7590	08/09/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			WOOD, KEVIN S	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/627,875

Applicant(s)

ABE ET AL.

Examiner

Kevin S Wood

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/28/03 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/28/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,864,645 to Zellmer et al.

Referring to claim 1, Zellmer et al. discloses a quartz base material for an optical fiber (20) having a deformed first clad consisting of at least three refractive index area, namely a core (24), a deformed first clad (22) and a second clad (26) wherein a second of the first clad has a deformed shape (28) with at least one linear part and the second

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clad has a round section. See Fig. 3, and its respective portion of the specification. It is inherent that the length of the longest part of the deformed second of the first clad is 15 mm or less, since the length must be less than the diameter of the first clad (22) and the diameter of the first clad may be as small as 20  $\mu\text{m}$ . See col. 3, lines 39-45.

Zellmer et al. does not appear to specifically disclose that the first and second clad are made from the same main material. Zellmer et al. discloses the main material for the first clad (22) may be a silica glass, while the main material for the second clad (26) may be a polymer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the same main material for the first and second clads, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. In re Leshin, 125 USPQ 416. It would clearly be within the level of one having ordinary skill in the art to make the first clad (22) and the second clad (26) from any suitable material, which would include making both clads from the same main material.

Referring to claim 2, Zellmer et al. discloses all the limitations of the claimed invention. Zellmer et al. discloses that the first clad (22) is a D-shape cladding. See Fig. 3, and its respective portion of the specification.

Referring to claims 5-8, Zellmer et al. discloses all the limitations of the claimed invention. Zellmer et al. discloses all the structural limitations of the claimed invention. This claim is a Product-by-Process type claim, therefore the patentability of the claim is based only on the structural limitations. The limitation of the first clad being produced

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by wiredrawing has no patentable weight in a device claim. See Fig. 3, and its respective portion of the specification.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,864,645 to Zellmer et al. in view of U.S. Patent No. 6,307,993 to Paek et al.

Referring to claims 3 and 4, Zellmer et al. discloses or makes obvious all the limitations of the claimed invention, except Zellmer et al. does not appear to specifically disclose that the refractive index of the first clad (22) gradually decreases from the center to toe periphery. Paek et al. discloses a core (12) surrounded by a first clad (14), where the first clad (14) has an index of refraction that decreases gradually from the center to the periphery. Paek et al. discloses that the gradual decrease in refractive index of the first clad (14) helps to reduce the unwanted effects (losses) due to external tension and stress. See Fig. 1-5, along with their respective portions of the specification. Since Zellmer et al. and Paek et al. are both from the same field of endeavor; the purpose of Paek et al. would have been recognized in the pertinent art of Zellmer et al. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to utilize a first clad with a gradually reduced refractive index from the center to the peripheral, for the purpose of reducing the unwanted losses caused by external stresses, such as bending.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KSW

**ELLEN E. KIM**  
**PRIMARY EXAMINER**

